

**AREA COMMAND EXECUTIVE SUMMARY / SITUATION REPORT**  
**AREA COMMAND (U.S. EPA REGIONS 8, 6 AND 9)**  
**GOLD KING MINE RELEASE INCIDENT**  
**U.S. ENVIRONMENTAL PROTECTION AGENCY**



Diversion channel at Gold King Mine Level 7 Adit

**Subject:** EXECSUM / SITREP #18  
Gold King Mine Release Incident  
San Juan County, Colorado  
Latitude: 37.8945 Longitude: -107.6384

**From:** Area Command Situation Unit

**Date:** 29 August 2015

**Reporting Period:** 0700 28 August 2015 through 0700 29 August 2015

**Website:** [www.epa.gov/goldkingmine](http://www.epa.gov/goldkingmine)



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**For Internal Use Only**

**EXECUTIVE SUMMARY**

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***Situation Summary***

United States Environmental Protection Agency (U.S. EPA) Area Command (AC), comprised of U.S. EPA Regions 8, 6 and 9, is continuing strategic management of the response Unified Incident Command Posts (ICPs).

***Highlights, Key Updates/Changes***

- ☐ AC is developing a strategy for transitioning and watershed monitoring plan, in conjunction with U.S. EPA Headquarters.
- ☐ AC is monitoring drinking water sampling performed, results and dissemination of results within Regions 8, 6 and 9.
- ☐ AC continues to monitor relations with the Navajo Nation, including security.

***Area Command Emphasis***

For the next operational period, the AC command emphasis will be:

- ☐ Positive and professional communications with stakeholders and response personnel.
- ☐ Safety and well-being of citizens and response personnel.
- ☐ Comprehensive sampling data processing process.
- ☐ Coordinate response between Regions 8, 6 and 9; and response transition.
- ☐ Develop a global message that supports transition to watershed monitoring plan.

The metrics provided in this Situation Report represent quantities reported for work completed on 28 August 2015. Metrics and information highlighted in yellow represent a change from the previous day's Situation Report. Press releases are presented in Attachment 1. Attachment 2 includes situation reports from Regions 8, 6 and 9.



## 1.0 OPERATIONS

### 1.1 Sampling Operations

Operations sampling activities are summarized below. Sample quantities are based on the SCRIBE database, and include field samples and quality assurance/quality control (QA/QC) samples.

Table 1 - Operations Sampling Summary			
Matrix	U.S. EPA Region	Qty. (28 August 2015)	Qty. (Cumulative)
Private Drinking Water Well Samples	8	8	343
	6	1	284
Surface Water Samples	8	8	275
	6	9	227
	9	0	228
Sediment Samples	8	7	67
	6	9	241
	9	0	180

There has not been sampling of private drinking water wells in U.S. EPA Region 9.

The quantities shown above may vary from the quantities shown in Attachment 2 because the database is dynamic and changes continuously as samples are collected and recorded. In addition, time during which the samples are recorded and entered into the database within the operational period and preparation of the various situation reports also introduces a variable that affects the quantities reported at a given time.

### 1.2 Water Distribution and Transportation Branch

AC continues to monitor potable water, agricultural water and agricultural food deliveries. U.S. EPA purchased 1,232 cases of bottled water to supply the community. Public support activities completed are summarized below.

Table 2 - Public Support Summary							
Activity	U.S. EPA Region	28 August 2015			Cumulative		
		Deliveries (each)	Qty. (gal)	Qty. (hay bales)	Deliveries (each)	Qty. (gal)	Qty. (hay bales)
Potable Water Deliveries	8	1	46,000		35	757,800	
Livestock / Agricultural Water Deliveries	8	0	0		47	141,980	
	6				59	1,104,990	
	9	0	0		13	218,400	
Agricultural Food Deliveries	6				1		244
	9	0		0	11		4,324

Bottled water was also provided to one other residence in Region 8. The Navajo Tribal Utility Authority is handling water deliveries in Region 9. The Region 6 agriculture and livestock team demobilized on 20 August 2015. There have not been potable water deliveries by the U.S. EPA in Regions 6 and 9; nor agricultural food deliveries by U.S. EPA in Region 8.



### 1.3 Community Engagements

Community engagements reported are summarized below.

The Animas River Stakeholder Group toured the mine on 28 August 2015.

Table 3 - Community Engagement Summary		
Description	U.S. EPA Region	Qty. (28 Aug 2015)
Community Engagements	8	1
	6	0
	9	0

### 1.4 Anticipated Events: VIPs/Congressional Visits and Public Events

Known site visits and public events for the next 7 days are summarized below.

Table 4 - Anticipated Site Visits and Public Events Summary		
U.S. EPA Region	Planned Event	Anticipated Date
Area Command	Meeting to consider possible formation of Coalition of Animas River Spill Partners	31 August 2015
	Southern Ute Tribal Leaders visit Gold King Mine site	2 September 2015
8	None scheduled.	N/A
6	Animas River Recovery Open House (Farmington, NM)	1 September 2015
9	None scheduled	N/A

### 1.5 Community Relations Branch

Effective 27 August 2015, calls to the Regional Call Center (970-385-8700) regarding the Gold King Mine Release Incident are being directed to the National Call Center (844-607-9700). The National Call Center is now being operated by U.S. EPA Headquarters. A total of 809 calls were received at the Regional Call Center during its operation by AC. A total of 223 calls were received at the National Call Center during its operation by AC, this included 120 calls related to Region 8, 67 calls related to Region 6 and 38 calls related to Region 9.

## 2.0 DRINKING WATER SYSTEM IMPACTS

No known water systems are currently affected by the release or response operations.

## 3.0 FINANCE

### 3.1 Estimated Response Costs to Date

The table below summarizes estimated costs for the response.

Table 5 - Estimated Response Costs Reported as of 28 August 2015					
Region	U.S. EPA Cumulative Expended Payroll	U.S. EPA Cumulative Expended Travel	U.S. EPA Cumulative Other Charges	U.S. EPA Cumulative Contractors Cost	Total Cumulative Costs
8	\$888,907	\$118,313	\$8454	\$1,984,253	\$3,009,927
6	\$393,510	\$101,950	\$12,989	\$2,159,763	\$2,668,212
9	\$468,720	\$73,500	\$0	\$734,920	\$1,277,140
TOTAL	\$1,751,137	\$293,763	\$31,443	\$4,878,936	\$6,955,279



### 3.2 Estimated Burn Rates

The table below summarizes current estimated burn rates for the response.

Table 6 - Estimated Daily Burn Rates	
U.S. EPA Region	Estimated Daily Burn Rate (as of 28 August 2015)
8	\$88,215
6	\$57,720
9	\$60,816
Total	\$206,751

### 4.0 PARTICIPATING ENTITIES

Federal, regional, local and other entities participating in the response are summarized below.

#### 4.1 Region 8

U.S. EPA  
U.S. Coast Guard (USCG)  
U.S. Fish and Wildlife Service (USFWS)  
U.S. Bureau of Reclamation (USBOR)  
Colorado Office of Emergency Management (OEM)  
Southern Ute Indian Tribe (SUIT)  
La Plata County  
San Juan County  
Colorado Department of Public Health and Environment (CDPHE)  
State of Colorado Southwest Incident Management Team (IMT)  
State of Colorado Northwest IMT  
State of Colorado Bolder IMT  
State of Colorado Jefferson County IMT  
City of Durango  
San Juan Basin Health Department

#### 4.2 Region 6

U.S. EPA  
USFWS  
New Mexico Environment Department (NMED)  
New Mexico (NM) Department of Health  
NM Office of the State Engineer  
NM Department of Game and Fish  
County of San Juan – New Mexico

#### 4.3 Region 9

U.S. EPA  
USCG  
Navajo Nation  
State of Colorado  
State of New Mexico



State of Utah  
State of Arizona

## 5.0 PERSONNEL ON-SITE

The table below summarizes staffing numbers for the federal entities and agencies active in the response.

Table 7 - Personnel On-Site		
Region	Agency / Entity	Number of Personnel (28 Aug 2015)
Area Command	U.S. EPA	13
	U.S. EPA Contractors	4
	USCG	2
8	U.S. EPA	5
	U.S. EPA Contractors	38
	USCG	6
	Other Federal, State, Local and Tribal Entities	5
6	U.S. EPA	13
	U.S. EPA Contractors	10
	USCG	0
	Other Federal, State, Local and Tribal Entities	0
9	U.S. EPA	1
	U.S. EPA Contractors	2
	USCG	1
	Other Federal, State, Local and Tribal Entities	2
Total		102

## 6.0 CRITICAL INCIDENT STRESS MANAGEMENT (CISM)

AC has implemented a CISM program for personnel involved with the response. On 28 August 2015, the CISM center received **3** visits from response personnel. To date, the CISM center has received **172** visits.

## 7.0 SOURCE OF ADDITIONAL INFORMATION

For additional information, refer to [www.epa.gov/goldkingmine](http://www.epa.gov/goldkingmine).



Exec. Sum/SITREP #18 (29 August 2015)  
Gold King Mine Release Incident  
Area Command

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**ATTACHMENT 1**  
**PRESS RELEASES**



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PRESS RELEASE # 1

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U.S. EPA Website (<http://www2.epa.gov/goldkingmine>)

**August 28, 2015:** Sediment and Water data added

(<http://www2.epa.gov/goldkingmine/gold-king-mine-data-august-28-2015>)

**Gold King Mine Data, August 28, 2015**

Data from Gold King Mine Response

Documents from Gold King Mine Response

Today EPA is posting additional sampling data results from the San Juan River in the Navajo Nation. Surface water and sediment samples were collected at 11 locations and analyzed for 24 metals, including arsenic, cadmium, lead and mercury. Concentrations of iron and other metals in San Juan River water in the Navajo Nation peaked during the week of August 10<sup>th</sup> as the mine release moved through the Navajo Nation, but have since trended to pre-release conditions.

Based on the comparison of pre-event data with data collected over the past two weeks, the pre-event sampling data show that concentrations for all 24 metals in surface water have trended to pre-event conditions, well below Recreational Screening Levels (RSL). The metal concentrations of the samples were also below soil / sediment recreational screening levels. Based upon the sediment sampling results, sediment sample concentrations are trending toward pre-event conditions as well.

- ☐ Open or download the data file: r9\_sediment\_0817\_and\_0818(1 pg, 61 K)
- ☐ Open or download the data file: r9\_surfacewater\_0817\_and\_0818-cu(1 pg, 107 K)

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EPA sediment samples collected on August 15-22 and Aug 24, 2015, at locations along the Animas and San Juan Rivers have been validated.

EPA has done a review of the data which included a comparison to screening levels for exposure during recreational use to determine if the metal concentrations are consistent with pre-event levels. The metal concentrations of the samples were below soil / sediment recreational screening levels. Based upon the sediment sampling results, sediment sample concentrations are trending toward pre-event conditions.

EPA surface water samples collected August 12-22, 2015, at locations along the Animas and San Juan Rivers have been validated.

Based on surface water sample results, surface water concentrations are trending toward pre-event conditions.

- ☐ Open or download the data file: r6\_sediment\_08272015\_1700(1 pg, 232 K)
- ☐ Open or download the data file: r6\_surfacewater\_08272015\_1700(1 pg, 429 K)





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PRESS RELEASE # 2

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U.S. EPA Website (<http://www2.epa.gov/goldkingmine>)

**August 27, 2015:** EPA Update on Gold King Mine Response: Navajo Nation, Additional Data, Public Records (<http://www2.epa.gov/goldkingmine/epa-update-gold-king-mine-response-navajo-nation-additional-data-public-records>)

**WASHINGTON** – Today EPA released an update on water quality and sediment data for Navajo Nation, as well as new data sets and additional public records on the Gold King Mine response.

**What new documents are being released?**

EPA is releasing documents related to legal agreements, grant funding, contract work, and response summary from Colorado employee on Gold King Mine.

Go here to view the documents.

**What data is EPA posting today?**

Today EPA is posting additional sampling data results from the San Juan River in the Navajo Nation. Surface water and sediment samples were collected at 11 locations and analyzed for 24 metals, including arsenic, cadmium, lead and mercury. Concentrations of iron and other metals in San Juan River water in the Navajo Nation peaked during the week of August 10<sup>th</sup> as the mine release moved through the Navajo Nation, but have since trended to pre-release conditions.

EPA is also releasing sediment and water quality samples collected at locations along the Animas and San Juan Rivers. The sediment data was collected on August 15-22 and Aug 24, 2015, and the surface water samples were collected August 12-22, 2015.

These data points have also been added to the trend graphs created from pre-event and post-event data posted to the Gold King Mine response

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Gold King Mine Documents - August 28, 2015

- ☐ 1996 Consent Decree, Sunnyside Gold Corp. v. Colorado Water Quality Control Division (PDF)(183 pp, 11 MB)

Without deciding the issue, this Consent Decree settlement resolved a disagreement between Sunnyside Gold Corporation and the Colorado Water Quality Control Division concerning whether seeps and springs that may arise from placing bulkheads in the American Tunnel would be subject to Clean Water Act jurisdiction as point sources. This settlement allowed Sunnyside to complete reclamation of the American Tunnel and Sunnyside Mine and terminate Colorado Discharge Pollutant Permits held by Sunnyside.

- ☐ Joint Motion for Entry of Consent Decree and Order (PDF)(24 pp, 1 MB)



- ☐ Colorado Department of Natural Resources application for EPA grant for project titled "Upper Animas Watershed Mines – Red and Bonita Mine." (PDF)(25 pp, 2 MB)
- ☐ EPA's March 11, 2015 Cooperative Agreement with the Colorado Department of Natural Resources (PDF)(10 pp, 1 MB)  

Cooperative Agreement - This document is the EPA's March 11, 2015 Cooperative Agreement with the Colorado Department of Natural Resources, providing grant funding to the State to perform technical engineering support as well as monitoring and assessment of the Red and Bonita Mine, Cement Creek and Upper Animas areas.
- ☐ Memorandum by Colorado DNR employee summarizing the events of August 5 from that employee's perspective. (PDF)(2 pp, 699 K)
- ☐ The Emergency and Rapid Response Services (ERRS) contract between the EPA and Environmental Restoration, LLC (PDF)(209 pp, 32 MB)  

Document containing the basic contract terms between EPA and Environmental Restoration, LLC, as well as modifications and pertinent task orders
- ☐ Email Describing Chronology of Gold King Mine incident (PDF)(3 pp, 1 MB)



Exec. Sum/SITREP #18 (29 August 2015)  
Gold King Mine Release Incident  
Area Command

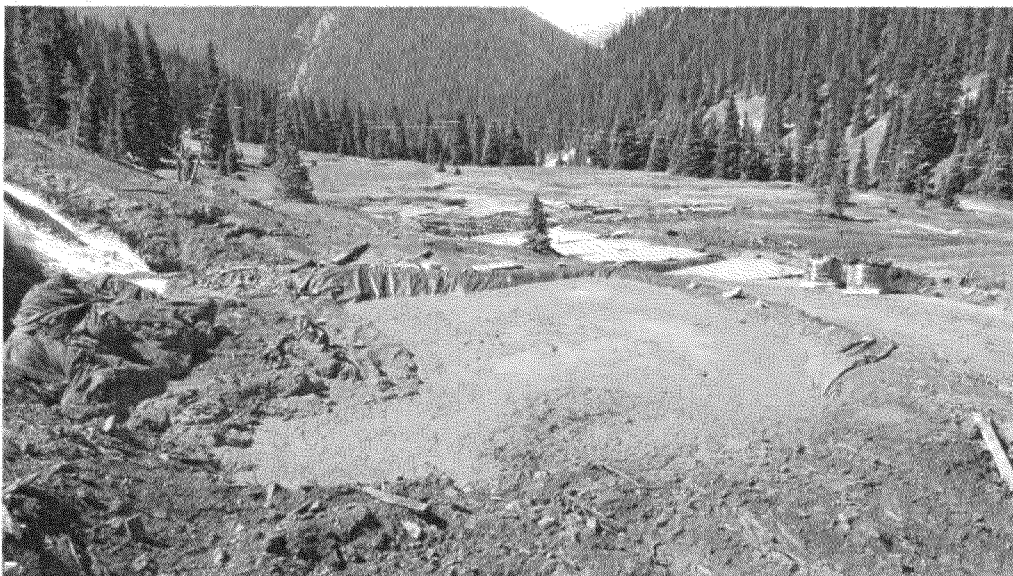
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**ATTACHMENT 2**  
**REGIONAL SITUATION REPORTS**

U.S. ENVIRONMENTAL PROTECTION AGENCY  
POLLUTION/SITUATION REPORT  
2015 Gold King Mine Release Incident  
Unified Command Colorado SITREP



EPA	GW
D-EPA	KD
CDPSDHSM	
LAPLATA	



Repository

UNITED STATES ENVIRONMENTAL PROTECTION AGENCY  
Region 8

Subject: Situation Report #20  
Gold King Mine Release  
San Juan County, CO  
Latitude: 37.8945 Longitude: -107.6384  
From: Colorado Unified Command (Situation Unit)  
Date: 08/29/2015  
Reporting Period: 08/28/2015  
Website: <http://www2.epa.gov/goldkingmine>

New information included in the SITREP is in bold text.

## Executive Summary

On 8/5/2015, a blowout at the Gold King Mine adit released up to three million gallons of contaminated water containing sediment and dissolved metals. This water discharged into Cement Creek which feeds into the Animas River, and eventually flows into the San Juan River.

A Unified Command (UC) was established in Durango, Colorado, which continues to assess and mitigate contamination resulting from the release. The UC includes EPA Region 8, State of Colorado Office of Emergency Management (OEM), Southern Ute Indian Tribe, and La Plata County. San Juan Basin Health Department, San Juan County and the Ute Mountain Ute Tribe are making available Administrators to the UC. The City of Durango and the Colorado Department of Public Health and the Environment (CDPHE) are coordinating agencies.

The EPA continues daily sampling of Animas River and Cement Creek surface water at seven total locations, in addition to private wells within a buffer area surrounding the Animas River and impacted ditches.

An EPA Area Command (AC) is also located in Durango, Colorado and coordinates EPA's response among EPA Regions 6, 8, and 9.

Active disaster declarations remain in effect for State of Colorado, San Juan County, Town of Silverton, La Plata County, City of Durango, and Southern Ute Tribe. The public health advisory issued 8/14/2015 by CDPHE for the Animas River remains active.

## Introduction

### 1.0 Background

Site Number: A8K9RV	Contract Number:
D.O. Number:	Action Memo Date:
Response Authority: CERCLA	Response Type: Emergency
Response Lead: EPA	Incident Category:
NPL Status: not listed	Operable Unit:
Mobilization Date: 08/05/2015	Start Date: 08/05/15
Demob Date: TBD	Completion Date:
CERCLIS ID:	RCRIS ID:
ERNS No.:	State Notification: 08/05/15

### 2.0 Site Description

The Gold King Mine near Silverton, Colorado is a historic gold mine at approximately 11,300' elevation. The mine discharges acidic mine drainage that is a contributor of heavy metals into the Cement Creek drainage of the Animas River watershed. The workings have been inaccessible since 1995 when the mine portal collapsed.

### **3.0 Description of Threat**

Mine waste water was released into Cement Creek and the Animas River as a result of the blowout on 8/5/2015. The volume of the release based on US Geological Survey (USGS) Cement Creek gauging station was estimated at three million gallons. The initial environmental concern was the pulse of contaminated water containing sediment and dissolved metals discharged in Cement Creek which flows into the Animas River through Durango, Colorado, and into New Mexico where it joins the San Juan River before flowing into Utah.

### **4.0 Critical Resource Needs**

Resources for the response continue to be ordered as needed to fill critical resource needs.

### **5.0 Incident Objectives**

- Ensure health and safety of the public and response management personnel
- Continue implementation of private well sampling and river monitoring plans
- Facilitate transition and approach to medium term sediment and river monitoring plans
- Continue coordination with State, Federal, Tribal and local Stakeholders and Neighboring jurisdictions
- Continue management of adit discharge
- Ensure continued access to mine site and continue mine dump stabilization
- Continue data sharing with local stakeholders
- Continue assessment of land owner complaints regarding sediment impacts
- Assess applicable criteria for incident end points

## **Operations**

### **6.0 Environmental Branch**

#### **6.1 Assessment and Mitigation Group**

- **EPA and START performed a visual assessment of John Thomas Ditch and the Animosa, Albrecht, and Blue Skies canals which run off this ditch. Sediment sampling of this area is scheduled for 8/30/2015.**
- **EPA continues to deliver water and assess the needs regarding the water systems of residences with MCL exceedances.**
- **Potable water delivery on 8/28/2015 was the same as the previous day: bottled water to one residence, and 46,000 gallons to one subdivision servicing approximately 60 residents.**

**6.2 A summary of surface/potable water and sediment samples collected as of 8/28/2015 is provided in the following table:**

Matrix	Number of Samples *	Total Samples Collected
Potable Water	8	344
Sediment	8	67
Surface Water	9	272

\*Quality Assurance samples are included in these numbers.

### **6.3 Private Well Sampling**

The EPA has transitioned to the Alluvial Groundwater Sample Approach, which focuses on wells in proximity to the alluvial zone, a buffer area from 200 to 300 feet from the banks of the Animas River (and various canals) from Bakers Bridge south to the Colorado - New Mexico State line. **EPA previously identified 155 private wells within the buffer area under the Alluvial Groundwater Sample Approach. However, due to redundant listings the actual number is much lower. To date, 37 wells have been tested within the buffer area.**

**EPA is sending flyers to the owners of the wells that have not been tested in the buffer area to offer sampling of their wells. To date, 66 flyers have been distributed.** EPA has stopped attempting to contact residences outside the buffer area for sampling, but will continue to address any requests on a case by case basis.

To date, eight private wells had detections of one or more metals above the EPA MCL, seven outside the buffer, and one inside the buffer. A second sampling event at four of these residences has been completed at their tap. The results showed one or more metals elevated above the EPA MCL at one residence within the buffer and three outside the buffer.

## **7.0 Mine Site Division**

The EPA continues to operate and work on optimizing treatment and sedimentation ponds at the mine site that are treating water by adjusting pH and removing dissolved metals.

### **7.1 Water Treatment**

- Diverting Gold King mine water to the R&B settling ponds.

### **7.2 Water Quality Sampling**

- Flow Rate of 602 GPM was recorded at 0900 from the Gold King Mine adit portal.
- Flow Rate of 620.6 GPM was recorded at 1500 from the Gold King Mine adit portal.

### **7.3 Sediment Recovery**

- Unloaded sludge from 40 yd dumpster into the repository, and continued water/sludge separation.

#### **7.4 Gold King Mine**

- Staged two cement water surge protector barricades near the portal entrance.

#### **7.5 Mine Logistics**

- Determine appropriate shelter for lime addition area.

#### **7.6 Site Visits**

- 16 people visited the site with the Animas River stakeholders group.

#### **7.7 Other activities occurring in the area that are not directly associated with the response:**

No Report.

#### **7.8 Mine Division Anticipated Activities**

- SUIT members are scheduled to visit the mine site on Wednesday, 9/2/2015.
- Implement installation of discharge drain pipe from mine to Gladstone.
- Use Goff Co. survey to assess necessary stabilization work of Gold King waste dump.
- Prepare for North Fork Cement Creek clean out of impacted material.
- Secure mine entrance to prevent collapse and maintain drainage.
- Proceeding with preparations to treat mine discharge at Gladstone with lime neutralization and settling of solids.

### **Command and General Staff**

#### **8.0 Logistics Section**

No Report.

#### **9.0 Finance Section**

The EPA Region 8 total cost as of 8/28/2015 is **\$3,009,927.00**. The estimated burn rate (\$/day) is **\$88,215.00**.

#### **10.0 Safety Officer**

As the Response continues, remember that hydration remains important. There is bottled water available at the ICP.

If new to the area the altitude can affect your health and endurance. If you are experiencing health effects from altitude please contact safety officer. One aid for altitude illness is concentrated chlorophyll, added to water and drink. The use of sunscreen, taking frequent breaks and staying hydrated can reduce the effects.

Driving is the number one hazard we face every day. Be sure to obey speed limits and follow traffic laws. Pedestrians and wildlife have been observed crossing the street anywhere and everywhere. Keep your eyes open and your head on a swivel. Distracted driving is one of the primary causes of motor vehicle accidents. DO NOT text and drive! School has started now, use caution around school zones. Finally, the terrain in this area can cause significant wear and tear on both vehicles and



**ATV's. Be sure to conduct safety inspections of your vehicles daily and consider bringing them in to a service station for a brake inspection.**

**No Injuries/Accidents (beyond first aid) were reported on 8/28/2015. Two total to date.**

The Emergency Response Peer Support team offers trained peer staff with whom you can talk to on a private basis, either in person or over the phone, when you feel stressed. Come and relax at the CISM Room. You can rest, have snacks, meditate or just chat.

You can contact your CISM team members at any time (24/7):

Tony Honnellio (R-1): 617 947-4414

Carter Williamson: 404-229-9507

**CISM had 3 visitors on 8/28/2015.**

#### **11.0 Liaison Officer**

No report.

#### **12.0 Information Officer**

No Report.

#### **13.0 Other Durango Area Activities**

No report.

#### **14.0 Visits**

No Report.

#### **15.0 Total Personnel in the Field as of 8/28/2015.**

Group	Number
EPA @ REOC	(12 on call)
Contractors @ REOC	0
EPA in Field	3
EPA Contractors in Field	38
Contractors Laboratory	0
USCG	6
ERT	2
Subtotal EPA Region 8 Resources	49 (+12 on call)

## 16.0 Personnel working at the Colorado Unified Command Post as of 08/28/15.

(Does not include Area Command Personnel):

Position / Section	Number of Personnel
Unified Command	6*
PIO	5
Safety	2
Operations	2
Planning (incl SITL, ENVL & RESL)	4
Logistics	0
Finance	2
Liaisons	0
Agency Representatives/Administrators	2*
Total	23

\*Includes 4 non-federal personnel from state, local, and tribal agencies

## 17.0 Organizations with personnel assigned to the response under the UC include:

- Colorado OEM
- Southern Ute Tribe
- La Plata County
- San Juan County
- Colorado Department of Public Health and Environment
- State of Colorado resources: Southwest IMT, Northwest IMT, Boulder IMT, Jeffco IMT
- City of Durango
- San Juan Basin Health Dept.
- US Bureau of Reclamation
- US Bureau of Indian Affairs
- US Coast Guard
- US Bureau of Reclamation (USBR) Technical Service Center

## 18.0 Weather Forecast:

### 18.1 DURANGO AREA

- **Tonight 8/29/2015**
  - Isolated showers and thunderstorms before 8pm. Partly cloudy, with a low around 54. South wind around 5 mph becoming northeast after midnight. Chance of precipitation is 10%.
- **Sunday 8/30/2015**
  - A 40 percent chance of showers and thunderstorms, mainly after 1pm. Partly sunny, with a high near 81. Northeast wind 5 to 10 mph becoming southwest in the afternoon.

- **Sunday Night 8/30/2015**
  - A 30 percent chance of showers and thunderstorms, mainly before midnight. Mostly cloudy, with a low around 54. West southwest wind 5 to 10 mph becoming light and variable.

## **18.2 SILVERTON AREA**

- **Tonight 8/29/2015**
  - Isolated showers and thunderstorms before 11pm. Partly cloudy, with a low around 41. West southwest wind 5 to 10 mph becoming south southeast in the evening. Chance of precipitation is 20%.
- **Sunday 8/30/2015**
  - A 50 percent chance of showers and thunderstorms, mainly after noon. Partly sunny, with a high near 68. South wind 5 to 10 mph becoming west in the afternoon.
- **Sunday Night 8/30/2015**
  - A 30 percent chance of showers and thunderstorms. Mostly cloudy, with a low around 41. South southwest wind 5 to 10 mph.
- **Sunrise: 0637, Sunset: 1944**

# **U.S. ENVIRONMENTAL PROTECTION AGENCY POLLUTION/SITUATION REPORT**

Gold King Mine Spill - Region 6

## **UNITED STATES ENVIRONMENTAL PROTECTION AGENCY**

### **Region VI**

**Subject: POLREP #21**

**Gold King Mine Spill - Region 6**

**Various New Mexico locations, NM**

**Latitude: 36.8374600 Longitude: -107.9916800**

**From:** Ronnie Crossland, Region 6 Regional Incident Commander (RIC)

**Date:** 8/29/2015

**Reporting Period:** 8/28/2015 0700 – 8/28/2015 1900

## **1. Introduction**

### **1.1 Description of Threat**

Region 8 reported approximately three million gallons of mine waste water was released into Cement Creek and the Animas River. The primary environmental concern is the pulse of contaminated water containing sediment and metals flowing as an orange-colored discharge downstream through Durango, Colorado, and into New Mexico and Utah.

### **1.2 Preliminary Removal Assessment/Removal Site Inspection Results**

Water monitoring and sampling is ongoing at public water supply intakes and private wells and field pH levels and other water quality parameters are being monitored.

## **2. Current Activities**

### **2.1 Operations Section**

EPA has sent NMED validated data for the following:

- Surface Water Sampling Analytical Data from August 6-12, 2015
- Surface Water Monitoring Data from August 6-14, 2015
- Intake Sediment Sampling Analytical Data from August 10-12, & 24 2015
- Irrigation Ditch Sediment Sampling Analytical Data from August 13-14, 2015
- Private Well Data from August 10-14, 2015 and August 19-21 and August 24, 2015

### Data Posted to the Web

The following data has been posted:

- Drinking Water Intake Surface Water Data from August 6-22
- Sediment Data from Intakes from August 10-22, 24

### Community Meeting/VIP

An Animas River Recovery Open House is scheduled for Farmington, NM on Tuesday, September 1, 2015 from 3 pm to 8 pm MDT. Areas of interest to be covered include, "Anticipated Long Term Environmental Monitoring of the River and Sediments", "Water Quality" and "Economic Impacts:Claims" The EPA Region 6 Incident Commander is scheduled to attend along with a member of the EPA Region 6 Environmental Unit.

### Toll-Free Number Activity

The EPA number is now immediately connecting to the Headquarters number.

	08/28/2015	Total to Date
Total Calls Received	0	190
Calls Concerning R6	0	64
Calls Returned by R6	0	64

TOPIC OF CALL	08/28/2015	OVERALL TOTALS
Well Water Test Scheduling	0	20
Water Concerns	0	8
Health Concerns	0	4
Livestock/Irrigation	0	4
Tourism/Media	0	1
Volunteer Offers	0	3
General Concerns	0	18
Contractor/Vendor Support	0	6

### Private Drinking Water Well Sampling

Matrix	US EPA Region	Qty. (8/28/2015)	Qty. (Cumulative)
Private Drinking Water Wells Resampled	6	0	100
Private Drinking Water Wells Initial Sample Effort	6	0	114

### Surface Water and Sediment Sampling

Matrix	US EPA Region	Qty. (8/28/2015)	Qty. (Cumulative)
Surface Water Samples	6	9	193
Sediment Samples	6	9	172

## 2.2 Finance Section

Daily Cost Estimates Report						
Reg	U.S. EPA Cumulative Expended Payroll	U.S. EPA Cumulative Expended Travel	U.S. EPA Cumulative Other Charges	Cumulative U.S. EPA Contractors Cost	Total Cumulative Costs	Estimated Daily Burn Rate
6	\$393,510.00	\$104,950.00	\$12,989.44	\$2,089,850.00	\$2,601,299.44	\$57,720.00

## 3. Participating Entities in Region 6

US EPA  
 USFWS  
 NMED  
 NM Department of Health  
 NM Office of the State Engineer NM  
 Department of Game and Fish  
 County of San Juan – New Mexico

## 4. Personnel

Group	Number
Region 6 EPA @ REOC	8
Region 6 Contractors @ REOC	1
Region 6 Staff in JIC – Durango, CO	3
Region 6 Staff in Area Command – Durango, CO	4
Region 6 EPA OSC	1
Region 6/7 Water Technicians	1
Region 6 EPA Contractors in Field	9

U.S. ENVIRONMENTAL PROTECTION AGENCY  
POLLUTION/SITUATION REPORT  
San Juan River Response - Removal Polrep



UNITED STATES ENVIRONMENTAL PROTECTION AGENCY  
Region IX

**Subject:** POLREP #16  
San Juan River Response  
Shiprock, NM  
Latitude: 36.8704828 Longitude: -108.7892506

**To:** Calanog Steve, EPA

**From:** Kathleen Dillon, Situation Unit Leader

**Date:** 8/29/2015

**Reporting Period:**

**1. Introduction**

**1.1 Background**

<b>Site Number:</b>	<b>Contract Number:</b>
<b>D.O. Number:</b>	<b>Action Memo Date:</b>
<b>Response Authority:</b>	<b>Response Type:</b>
<b>Response Lead:</b>	<b>Incident Category:</b>
<b>NPL Status:</b>	<b>Operable Unit:</b>
<b>Mobilization Date:</b>	<b>Start Date:</b>
<b>Demob Date:</b>	<b>Completion Date:</b>
<b>CERCLIS ID:</b>	<b>RCRIS ID:</b>
<b>ERNS No.:</b>	<b>State Notification:</b>
<b>FPN#:</b>	<b>Reimbursable Account #:</b>

**1.1.1 Incident Category**

**1.1.2 Site Description**

The Gold King Mine near Silverton, Colorado is a historic gold mine at approximately 11,300' elevation. The mine has a continuous discharge of acidic mine drainage that is a significant contributor of manganese, zinc, copper, and cadmium into the Cement Creek drainage of the Animas River watershed. The Gold King Mine has not had maintenance of the mine workings since 1991, and the workings have been inaccessible since 1995 when the mine portal collapsed.

EPA Region 9 is focused on a stretch of the San Juan River extending from Farmington, NM to Mexican Hat, UT.

**1.1.2.1 Location**

San Juan County, NM and Navajo Reservation. The Animas River flows into the San Juan River at Farmington, NM. After the Animas River meets the San Juan River, the San Juan River continues to flow west through parts of New Mexico, Colorado, and Utah.

**1.1.2.2 Description of Threat**

Mine waste water was released into Cement Creek and the Animas River. The volume of the release based on US Geological Survey (USGS) Cement Creek gauging station is estimated at three million gallons. The initial environmental concern was the pulse of contaminated water containing sediment and metals discharged in Cement Creek which flows into the Animas River through Durango, Colorado, and into New Mexico where it joins the San Juan River before flowing into Utah. The river is also used for recreational purposes,

including fishing and rafting, and is an important cultural resource for the Navajo Nation.

The leading edge of the release reached the New Mexico border on August 8, 2015 where it eventually discharged into the San Juan River.

### **1.1.3 Preliminary Removal Assessment/Removal Site Inspection Results**

Aerial and ground reconnaissance indicates that the plume associated with the Gold King Mine release has dissipated downstream. There is no leading edge of contamination visible in downstream sections of the San Juan River or Lake Powell.

EPA Region 9 is collecting and assessing water quality from the San Juan River from La Plata Highway in New Mexico to Mexican Hat in Utah. Water sampling is occurring, and pH levels and dissolved concentrations of metals are being monitored.

## **1.2 Incident Objectives**

### **1. Safety**

- Provide safe working environment for all response personnel
- Identify safety issues and monitor adherence to Health and Safety Plan
- Maximize protection of public health and welfare

### **2. Sampling**

- Conduct water and sediment sampling from 11 designated locations along the San Juan River
- Conduct sampling from Lake Powell at 11 identified sites
- Synchronize sampling data and information with Area Command

### **3. Water and Agricultural Needs**

- Procure water trucks and establish watering points
- Establish needs and delivery of water and feed for livestock

## **2. Current Activities**

### **2.1 Operations Section**

#### **2.1.1 Narrative**

**Farmington ICP is now on a 96-hour operational period. The next Incident Action Plan will be delivered on Sunday evening.**

Sampling along the San Juan River has stopped for the weekend. Starting next week sampling will be moving to a twice-weekly schedule where samples will be taken at 5-6 sampling locations on Mondays and Thursdays. Alfalfa deliveries are ongoing. One START contractor is on scene at Lake Powell gathering samples. The Lake Powell operation is expected to conclude on Sunday and the START contractor will be demobilized at this time.

**The Community Outreach branch has demobilized and ERRS contractors currently staffing the Logistics Section are demobilizing today. Coordination of alfalfa orders will be handled remotely.**

#### **2.1.2 Response Actions to Date**

#### **Sampling Branch**

EPA Region 9 initiated water and sediment sampling efforts on August 9, 2015, to assess the impacts of the release at the Gold King Mine on the San Juan River. Starting on August 9, samples were gathered from the shoreline of the following designated locations along the San Juan River. Samples will not be collected again until Monday due to lack of availability of law enforcement escorts.

#### **New Mexico**

San Juan River at LaPlata Highway (SJLP)  
PNM Intake (SJFP)  
San Juan River at Hogback (SJHB)  
San Juan River at Shiprock (SJSR)  
San Juan DS from Shiprock (SJDS)  
San Juan River at Four Corners (SJ4C)

#### **Utah**

San Juan River at McElmo Creek (SJME)  
San Juan at Montezuma Creek (SJMC)  
San Juan River at Bluff Bridge (SJBB)  
San Juan River at Mexican Hat (SJMh)  
McElmo Creek Tributary (MECT)

Sample totals are summarized below:



	U.S. EPA Region	Qty. (8/28/2015)	Qty. (Cumulative)
Private Drinking Water Well Samples	9	0	0
Surface Water Samples	9	0	181
Sediment Samples	9	0	163

August 8 - 4 water samples (SJLP, SJFP, SJHB & SJSR)  
 August 9 - 13 water samples (all sites)  
 August 10 - 12 water samples, 11 sediment samples (all sites)  
 August 11 - 13 water samples, 13 sediment samples (all sites)  
 August 12 - 13 water samples, 13 sediment samples (all sites)  
 August 13 - 12 water samples, 12 sediment samples (all sites)  
 August 14 - 12 water samples, 12 sediment samples (all sites)  
 August 15 - 12 water samples, 12 sediment samples (all sites)  
 August 16 - 12 water samples, 12 sediment samples (all sites)  
 August 17 - 12 water samples, 12 sediment samples (all sites)  
 August 18 - 10 water samples, 10 sediment samples (did not sample at SJSR or SJDS)  
 August 19 - 10 water samples, 10 sediment samples (did not sample at SJSR or SJDS)  
 August 20 - no samples collected  
 August 21 - no samples collected  
 August 22 - no samples collected  
 August 23 - no samples collected  
 August 24 - 12 water samples, 12 sediment samples  
 August 25 - 12 water samples, 12 sediment samples  
 August 26 - 11 water samples, 11 sediment samples (did not sample at SJDS)  
 August 27 - 11 water samples, 11 sediment samples (did not sample at SJDS)  
**August 28 - 0 water samples, 0 sediment samples**

There have been no requests for well samples and no requests for samples from diversion channels.

#### **Community Relations Branch**

All community involvement duties are suspended under the current order.

#### **Water and Feed Delivery Branch**

A summary of water and livestock feed deliveries are as follow:

Activity	U.S. EPA Region	8/28/2015			Cumulative		
		Deliveries (each)	Qty. (gal)	Qty. (hay bales)	Deliveries (each)	Qty. (gal)	Qty. (hay bales)
Potable Water Deliveries	9	0	0	0	0	0	0
Livestock / Agricultural Water Deliveries	9	0	0	0	13	218,400	0
Agricultural Food Deliveries	9	0	0	0	11	0	4324

Feed delivered for livestock is as follows:

8/14 - 384 bales of alfalfa delivered to Gaadiiahi chapter  
 8/21 - 384 bales delivered to Gaadiiahi, 384 bales delivered to Nenahnezad, 384 bales delivered to Hogback, 384 bales delivered to Upper Fruitland  
 8/22 - 384 bales delivered to Beclibito  
 8/24 - 384 bales delivered to Shiprock, 384 bales delivered to Red Mesa, 384 bales delivered to Aneth  
 8/27 - 384 bales delivered to Oljeto, 384 bales delivered to Mexican Water  
**8/28 - no deliveries**

#### **Drinking Water System Impacts**

No known water systems in Region 9 have been impacted.

#### **Glen Canyon, Arizona ICP**

One START contractor is the only representative to remain on scene in the Lake Powell vicinity. He has been integrated into a USGS/NPS expedition that is expected to conclude on Sunday. Yesterday, the START contractor that had been underway with the expedition was replaced by a different START contractor. The samples collected through yesterday were dropped off for analysis.

Sampling efforts throughout this expedition are detailed below.

Matrix	U.S. EPA Region	Qty. (8/27/2015)	Qty. (Cumulative)
Private Drinking Water Well Samples	9	0	0
Water Samples ( at 4 different depths)	9	0	80
Sediment Samples	9	0	20

## 2.2 Planning Section

### 2.2.1 Anticipated Activities

**Because Navajo law enforcement representatives are unable to support sampling on a daily basis, sampling will be scaled back to Mondays and Thursdays after today.**

One START contractor is the only member that remains working out of the Lake Powell area. He is working with a USGS/NPS crew on scene and has embarked on a 14 day trip. The trip will conclude this weekend.

Feed is continuing to be delivered to various Navajo chapters. Deliveries are expected to be made to Teec Nos Pas and Navajo Mountain tomorrow.

#### 2.2.1.2 Next Steps

### 2.2.2 Issues

On 17AUG15, at approximately 1130, seven members of the Farmington ICP response team were approached in the farmland area of Shiprock by a member of the Navajo Nation. The individual is in opposition to the response operations of Farmington ICP in regards to water and feed deliveries in the Shiprock Chapter. During the confrontation, the response personnel were threatened by being told their vehicles "would be stoned". They were also intimidated by a second vehicle that showed up in support of the individual. The response personnel listened to what the individual had to say and eventually left.

At approximately 1215, another incident occurred with the same individual at the bridge in Shiprock. There, the individual argued with 2 EPA employees and threatened to break their equipment. The individual left after a few minutes. In both cases the response personnel returned to the Farmington ICP and were unharmed.

An investigation is being conducted by the Navajo Department of Criminal Investigation.

On 19AUG15, a video was posted on social media that showed Navajo Nation President and Attorney General alleging contamination in one of the water tanks delivered by the EPA.

## 2.3 Logistics Section

NAPI requires a 3-day advance notice prior to alfalfa deliveries in order to make appropriate accommodations.

## 2.4 Finance Section

### 2.4.1 Narrative

Region	U.S. EPA Cumulative Expended Payroll	U.S. EPA Cumulative Expended Travel	U.S. EPA Cumulative Other Charges	Cumulative U.S. EPA Contractors Cost	Total Cumulative Costs	Estimated Daily Burn Rate
9				\$995,000 (estimated)	\$1,044,000(estimated)	\$22,000(estimated)

## 2.5 Other Command Staff

### 2.5.1 Safety Officer

With weather being forecasted into the 90s, hydration is of paramount importance. Additionally, much of the terrain surrounding the river is uneven and rocky. Responders should transit these areas with care.

While transiting throughout the region, responders should be mindful of the potential for contact with wildlife. Scorpions, snakes, and other similar animals raise a potential for injury.

### 2.5.2 Liaison Officer

Liaison officers are continuing outreach with Navajo community members and representatives of the Navajo Tribe.

### 2.5.3. Weather Forecast

#### Weather forecast for Saturday, August 29

##### FARMINGTON AREA

##### *Today*

A mix of sun and clouds with a high of 90, low of 57 and 20% chance of precipitation. Wind coming out of the east at 8 miles per hour.

##### *Tonight*

Chance of precipitation tonight. Partly cloudy, with a low around 57.

##### *Tomorrow*

Sunny with a high of 88, low of 59. 20% chance of precipitation.

## 3. Participating Entities

### 3.1 Area Command

EPA Region 9 is coordinating with EPA Regions 6 and 8, Navajo Nation, and the states of Colorado, New Mexico, Utah, and Arizona. The EPA Region 9 is working with the Navajo Nation to evaluate possible impacts to the Tribe. Potentially impacted water systems have been notified, and precautions are in place to ensure drinking water is protected. The EPA and New Mexico Environmental Department are providing assistance to community water systems and closely monitoring the situation. EPA Region 9 has contacted the Bureau of Indian Affairs regarding potential impacts to the Navajo Nation and is currently working with Navajo liaisons.

### 3.2 Incident Command and Cooperating Agencies

The Farmington Incident Command includes EPA Region 9 and United States Coast Guard. Donn Zuroski has relieved Bret Moxley as Incident Commander. **Deputy Incident Commander has demobilized and Incident Commander (Donn Zuroski) will be demobilizing Saturday.**

## 4. Personnel On Site

Region	Agency / Entity	Number of Personnel (8/28/2015)
	U.S. EPA Personnel	1
	U.S. EPA Contractors	2
	USCG	1
	Other Federal, State, Local and Tribal Entities - 2	

## 5. Definition of Terms

No information available at this time.

## **6. Additional sources of information**

### **6.1 Internet location of additional information/report**

[www.epa.gov/goldkingmine](http://www.epa.gov/goldkingmine)

## **7. Situational Reference Materials**

No information available at this time.